This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A method, comprising:

establishing a connection with a link partner at a common transmission speed;

setting a duplex mode used for transmissions to a first duplex mode;

monitoring a transmission error rate with the link partner;

changing the duplex mode to a second duplex mode in response to detecting that the transmission error rate exceeds a threshold.

2. (Original) The method of claim 1, wherein the duplex mode is changed without terminating the connection with the link partner.

3. (Original) The method of claim 1, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex.

4. (Original) The method of claim 1, wherein the first duplex mode comprises half duplex and the second duplex mode comprises full duplex.

5. (Original) The method of claim 1, wherein the duplex mode is changed to the second duplex mode by:

setting a flag in a hardware register to cause the hardware to transmit in the second duplex mode while maintaining the connection with the link partner.

6. (Original) The method of claim 5, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex, and wherein the hardware switches to the half duplex mode in response to the flag being set by:

detecting a receive signal while transmitting data;

continuing to transmit the data in response to detecting the receive signal and the flag indicating the full duplex mode; and

terminating the transmission of the data in response to detecting the receive signal and the flag indicating the half duplex mode.

7. (Original) The method of claim 1, further comprising:

using auto-negotiation when establishing the connection; and

detecting a transmission speed of the link partner after determining that the link partner does not have auto-negotiation enabled, wherein the common connection speed comprises the detected transmission speed of the link partner.

8. (Original) The method of claim 1, further comprising:

forcing the transmission speed to a predetermined link speed, wherein the connection is established if the link partner transmits at the predetermined link speed.

9. (Original) The method of claim 1, wherein the monitored transmission error rate comprises a bit error ratio of a number of bits received in error to a total number of bits received within a predefined time window.

10. (Original) The method of claim 1, further comprising:

continuing to monitor the transmission error rate with the link partner after changing the duplex mode; and

changing the duplex mode from one of the first to second duplex mode or from the second to first duplex mode in response to detecting that the transmission error rate exceeds the threshold.

11. (Previously Presented) A system in communication with a link partner, comprising:

an adapter;

a data link layer in communication with the adapter, wherein the data link layer is operable to:

establish a connection between the adapter and the link partner at a common transmission speed;

set a duplex mode at which the adapter transmits data to a first duplex mode;

monitor a transmission error rate with the link partner; and

change the duplex mode to a second duplex mode in response to detecting that the transmission error rate exceeds a threshold.

12. (Original) The system of claim 11, wherein the duplex mode is changed without terminating the connection with the link partner.

13. (Original) The system of claim 11, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex.

14. (Original) The system of claim 11, wherein the first duplex mode comprises half duplex and the second duplex mode comprises full duplex.

15. (Original) The system of claim 11, wherein the duplex mode is changed to the second duplex mode by:

setting a flag in an adapter register to cause the adapter to transmit in the second duplex mode while maintaining the connection with the link partner.

16. (Original) The system of claim 11, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex, and wherein the adapter switches to the half duplex mode in response to the flag being set by:

detecting a receive signal while transmitting data;

continuing to transmit the data in response to detecting the receive signal and the flag indicating the full duplex mode; and

terminating the transmission of the data in response to detecting the receive signal and the flag indicating the half duplex mode.

17. (Original) The system of claim 11, wherein the adapter is operable to perform:

use auto-negotiation when establishing the connection; and

detect a transmission speed of the link partner after determining that the link partner does not have auto-negotiation enabled, wherein the common connection speed comprises the detected transmission speed of the link partner.

18. (Original) The system of claim 11, wherein the adapter is further operable to perform:

force the transmission speed to a predetermined link speed, wherein the connection is established if the link partner transmits at the predetermined link speed.

19. (Original) The system of claim 11, wherein the monitored transmission error rate comprises a bit error ratio of a number of bits received in error to a total number of bits received within a predefined time window.

20. (Original) The system of claim 11, wherein the data link layer is further operable to perform:

continue to monitor the transmission error rate with the link partner after changing the duplex mode; and

change the duplex mode from one of the first to second duplex mode or from the second to first duplex mode in response to detecting that the transmission error rate exceeds the threshold.

21. (Original) The system of claim 11, further comprising:

a processor; and

a software driver implementing the data link layer executed by the processor.

22. (Original) The system of claim 11, wherein the data link layer is implemented in the adapter.

23. (Previously Presented) A system in communication with a link partner, comprising:

a processor;

an adapter;

a data link layer execute by the processor in communication with the adapter, wherein the data link is operable to:

establish a connection between the adapter and the link partner at a common transmission speed;

set a duplex mode at which the adapter transmits to a first duplex mode;

monitor a transmission error rate with the link partner; and

change the duplex mode to a second duplex mode in response to detecting that the transmission error rate exceeds a threshold.

24. (Original) The system of claim 23, wherein the duplex mode is changed without terminating the connection with the link partner.

25. (Original) An article of manufacture in communication with a link partner, wherein the article of manufacture is operable to:

establish a connection with the link partner at a common transmission speed;

set a duplex mode to a first duplex mode;

monitor a transmission error rate with the link partner;

change the duplex mode to a second duplex mode in response to detecting that the transmission error rate exceeds a threshold.

26. (Original) The article of manufacture of claim 25, wherein the duplex mode is changed without terminating the connection with the link partner.

27. (Original) The article of manufacture of claim 25, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex.

28. (Original) The article of manufacture of claim 25, wherein the first duplex mode comprises half duplex and the second duplex mode comprises full duplex.

29. (Original) The article of manufacture of claim 25, wherein the duplex mode is changed to the second duplex mode by:

setting a flag in a hardware register to cause the hardware to transmit in the second duplex mode while maintaining the connection with the link partner.

30. (Original) The article of manufacture of claim 29, wherein the first duplex mode comprises full duplex and the second duplex mode comprises half duplex, and wherein the hardware switches to the half duplex mode in response to the flag being set by:

detecting a receive signal while transmitting data;

continuing to transmit the data in response to detecting the receive signal and the flag indicating the full duplex mode; and

terminating the transmission of the data in response to detecting the receive signal and the flag indicating the half duplex mode.

31. (Original) The article of manufacture of claim 25, wherein the article of manufacture is further operable to:

use auto-negotiation when establishing the connection; and

detect a transmission speed of the link partner after determining that the link partner does not have auto-negotiation enabled, wherein the common connection speed comprises the detected transmission speed of the link partner.

32. (Original) The article of manufacture of claim 25, wherein the article of manufacture is further operable to:

force the transmission speed to a predetermined link speed, wherein the connection is established if the link partner transmits at the predetermined link speed.

33. (Original) The article of manufacture of claim 25, wherein the monitored transmission error rate comprises a bit error ratio of a number of bits received in error to a total number of bits received within a predefined time window.

34. (Original) The article of manufacture of claim 25, wherein the article of manufacture is further operable to:

continue to monitor the transmission error rate with the link partner after changing the duplex mode; and

change the duplex mode from one of the first to second duplex mode or from the second to first duplex mode in response to detecting that the transmission error rate exceeds the threshold.